

No. 894,275.

PATENTED JULY 28, 1908.

W. L. MARBLE.

REAR SIGHT.

APPLICATION FILED MAY 20, 1907.

2 SHEETS-SHEET 1.

Fig. 1.

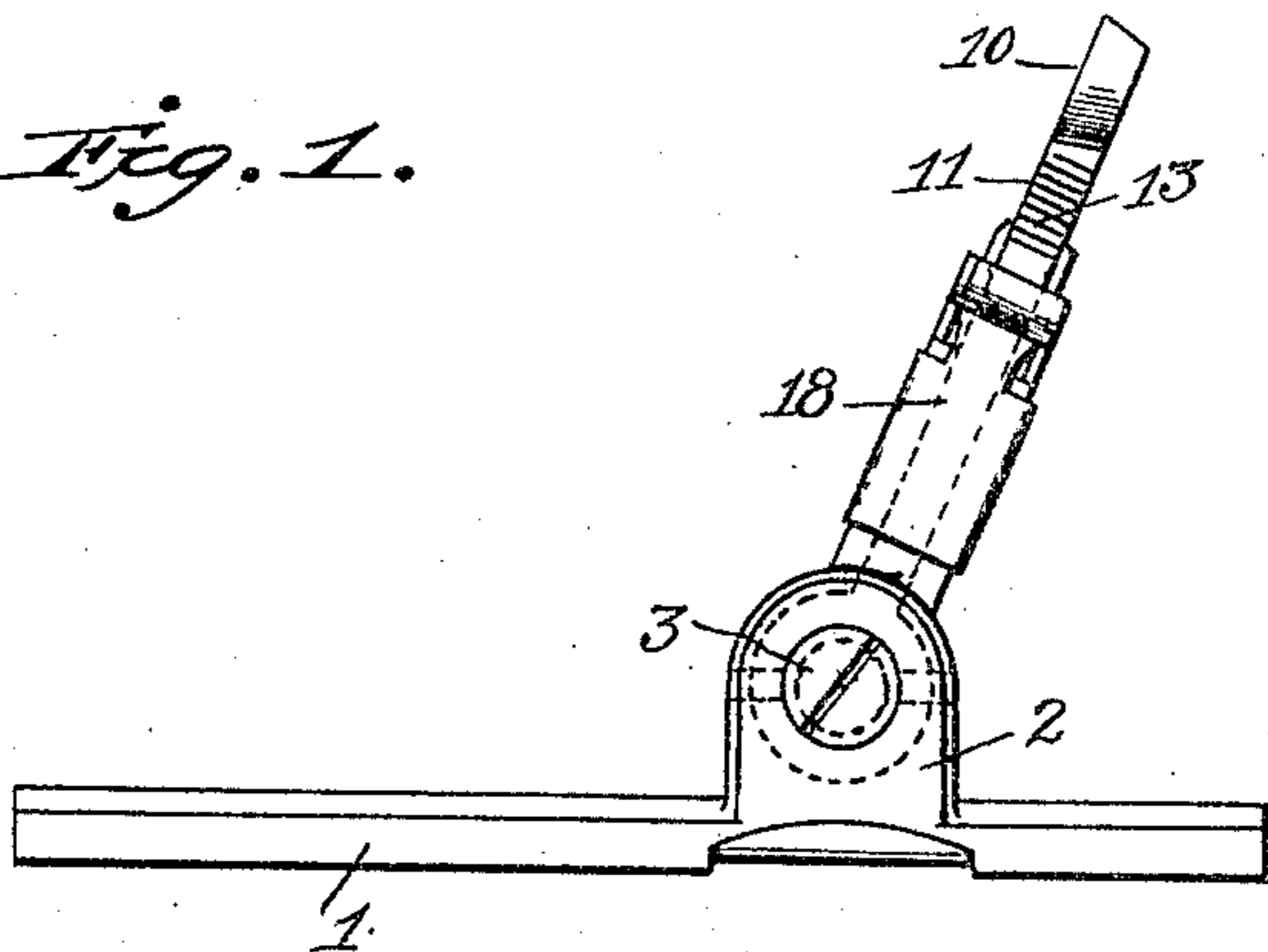


Fig. 2.

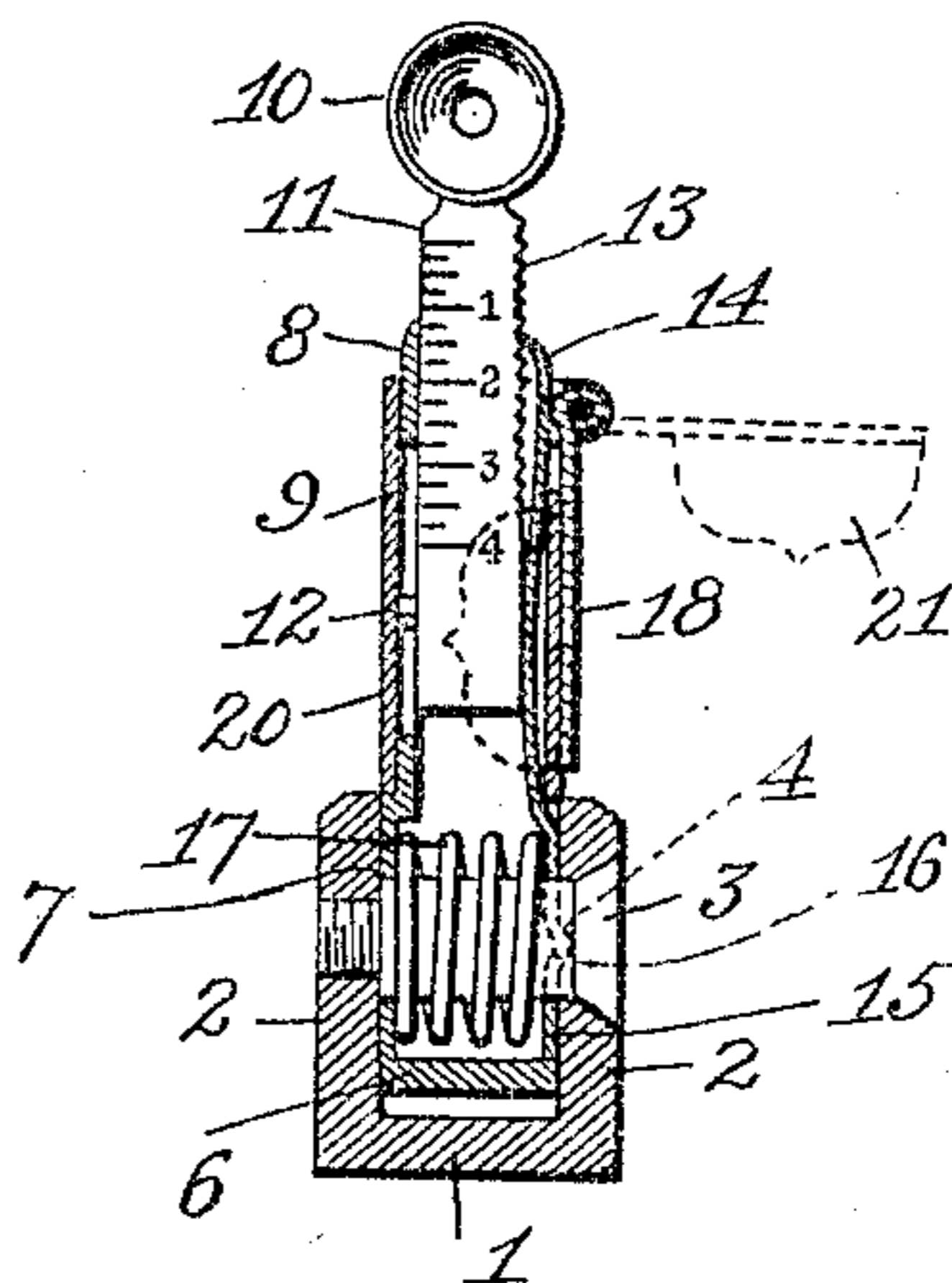


Fig. 3.

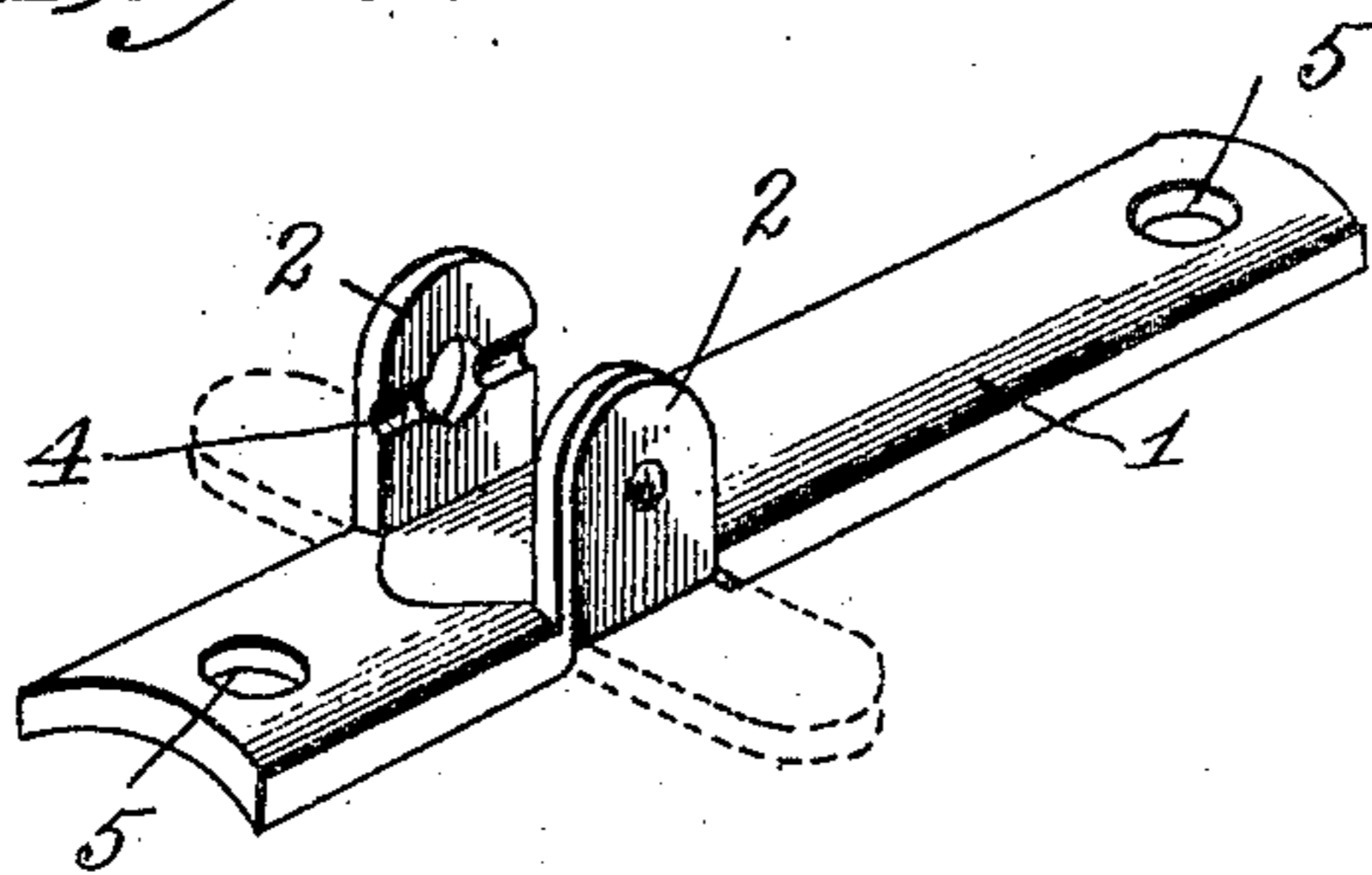


Fig. 4.

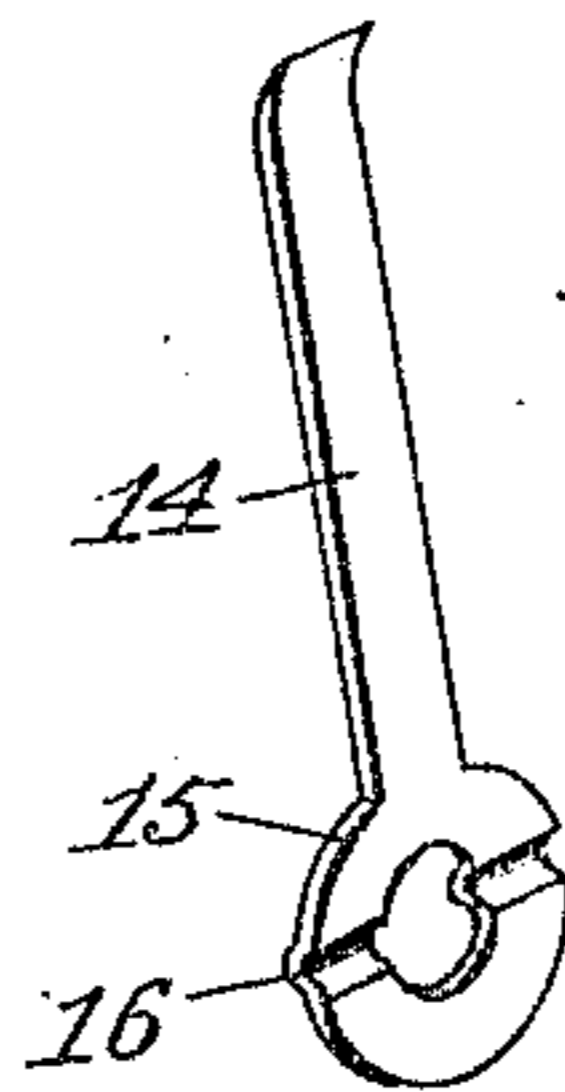


Fig. 5.

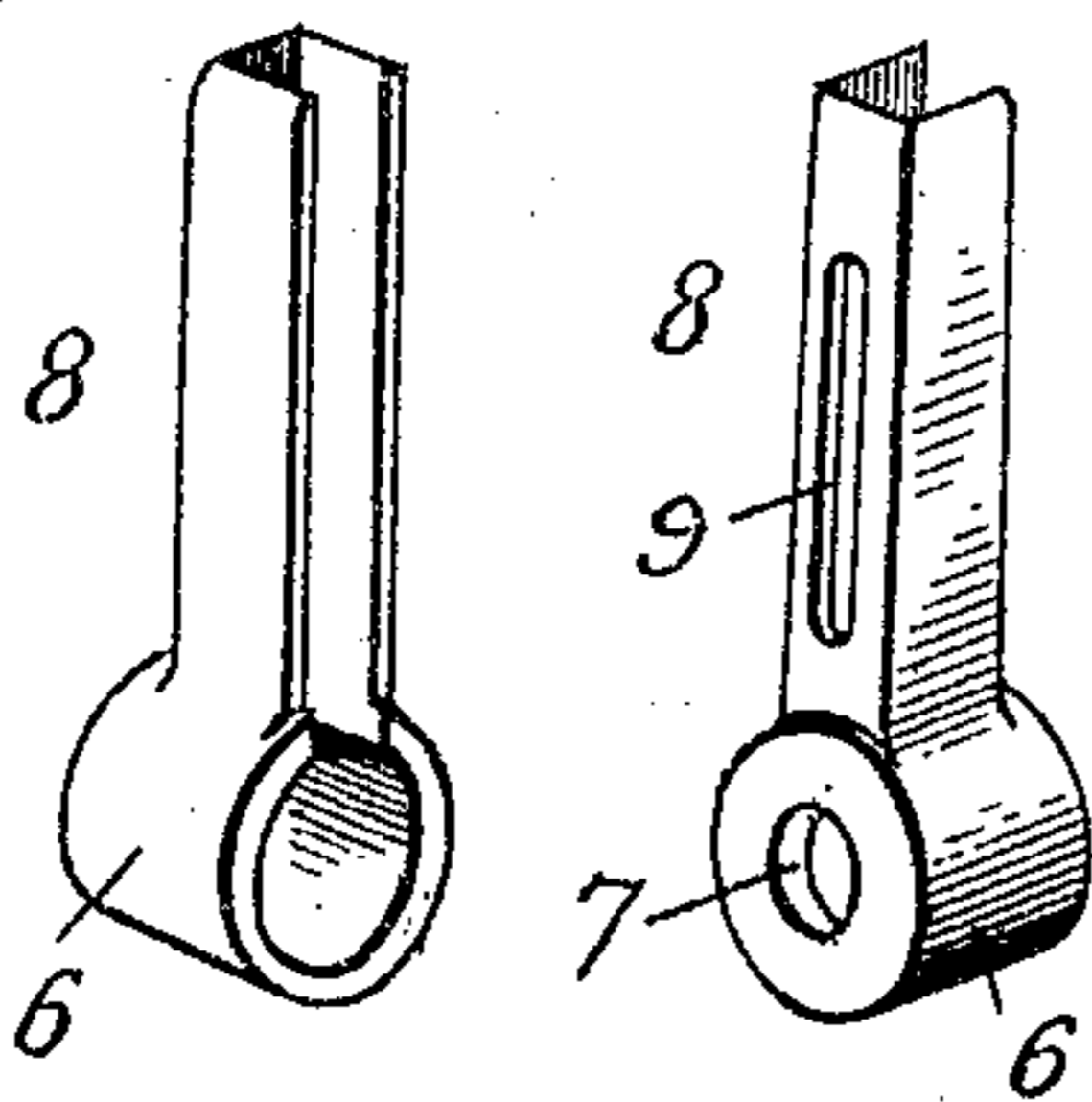


Fig. 6.

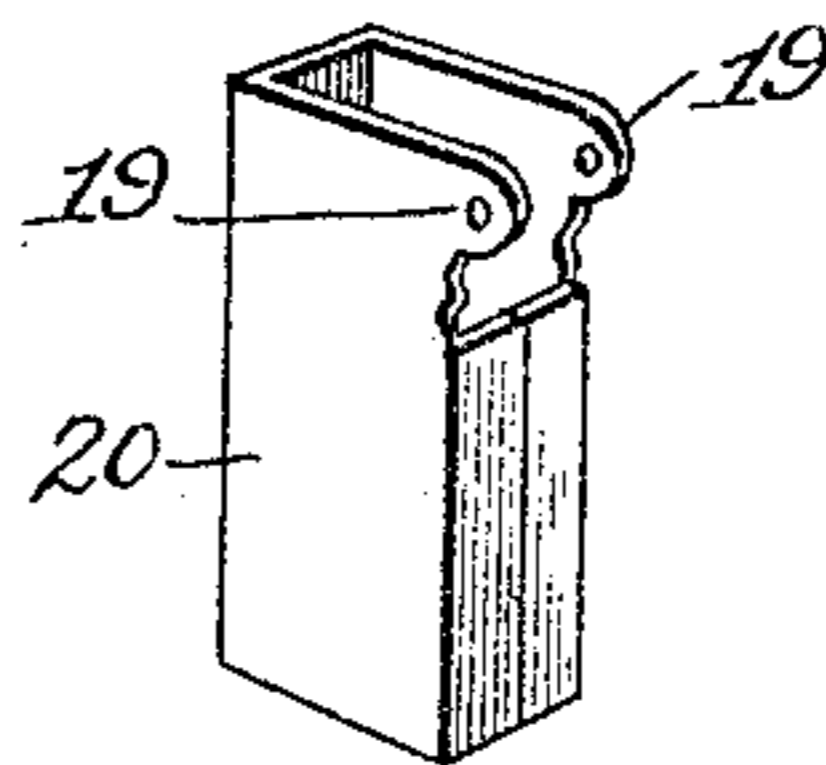
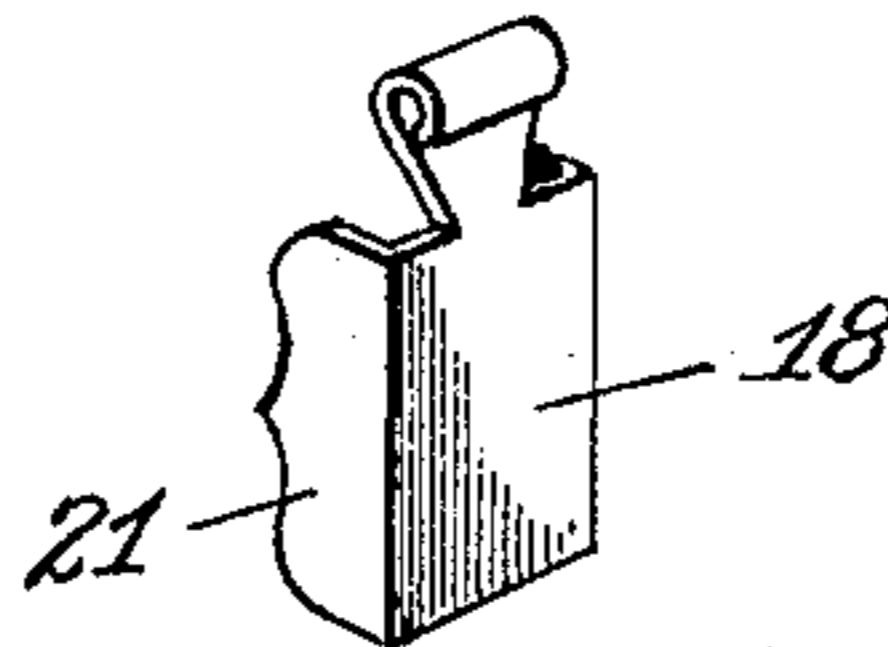


Fig. 7.



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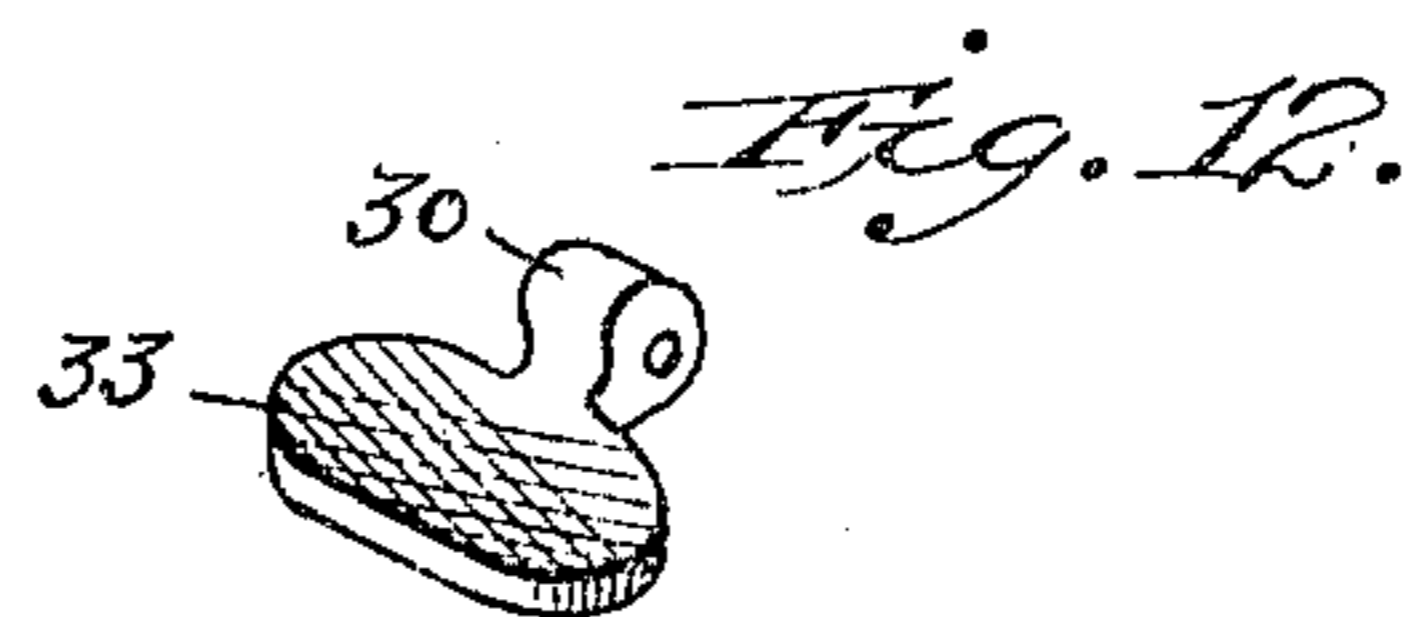
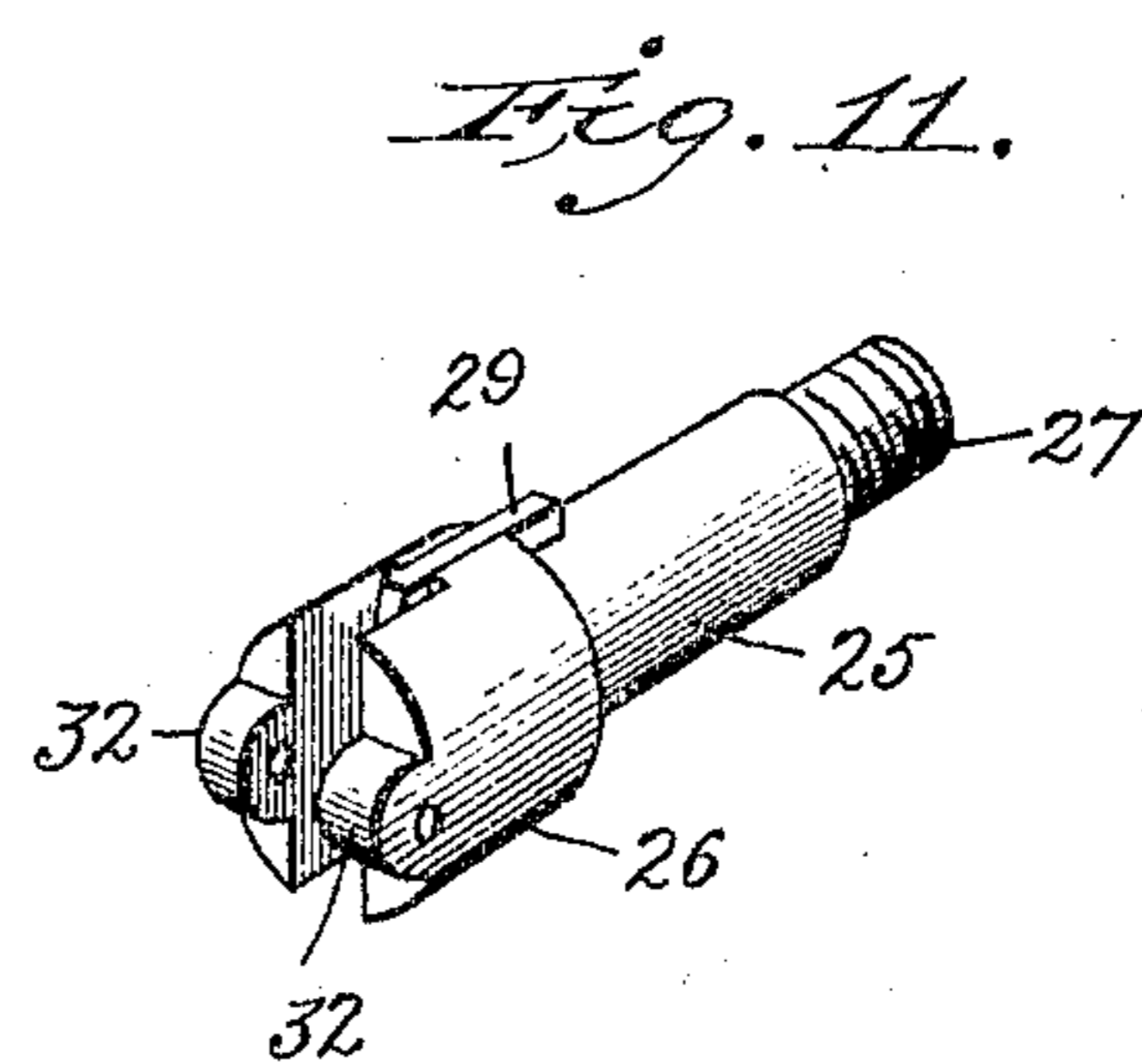
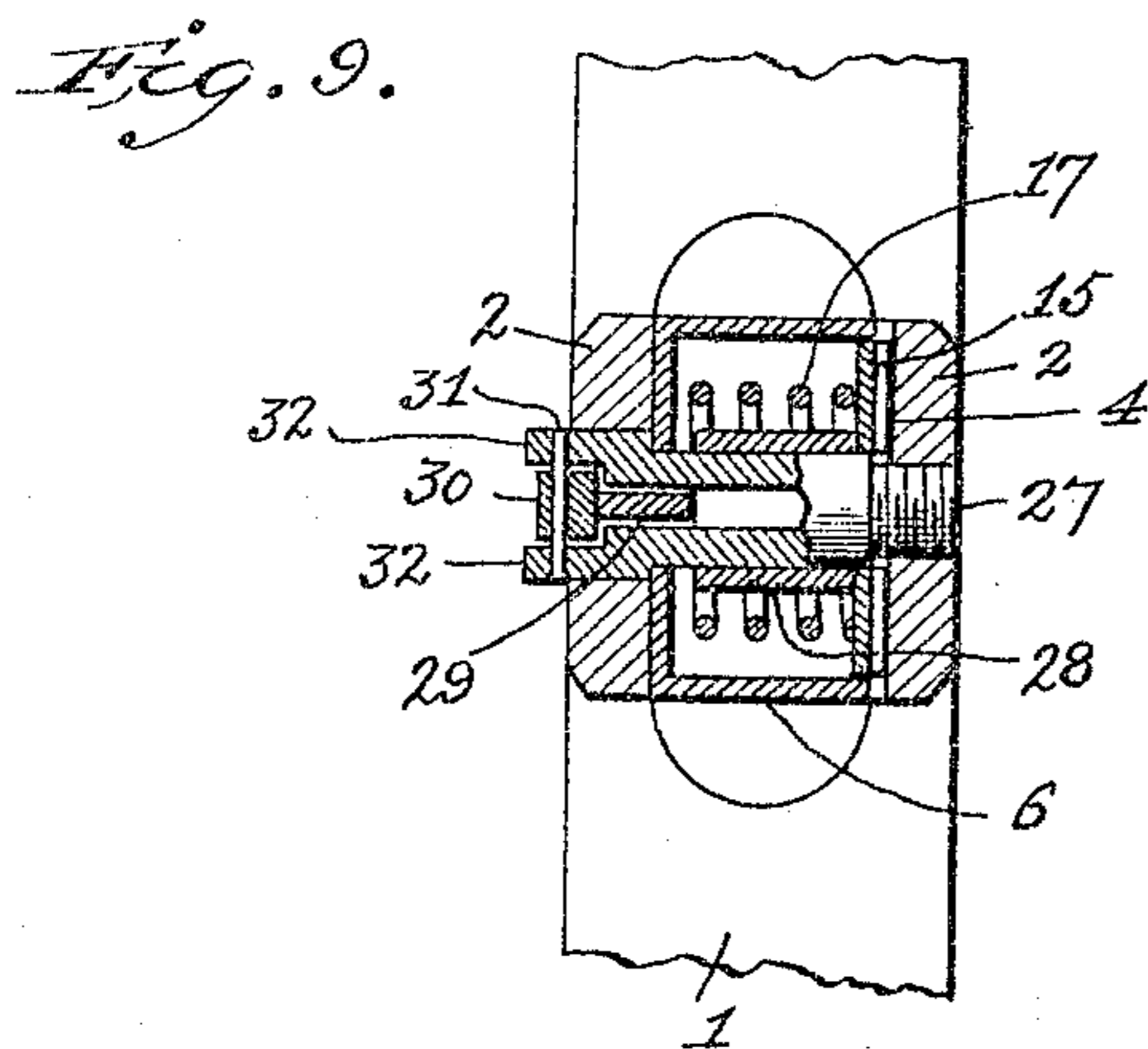
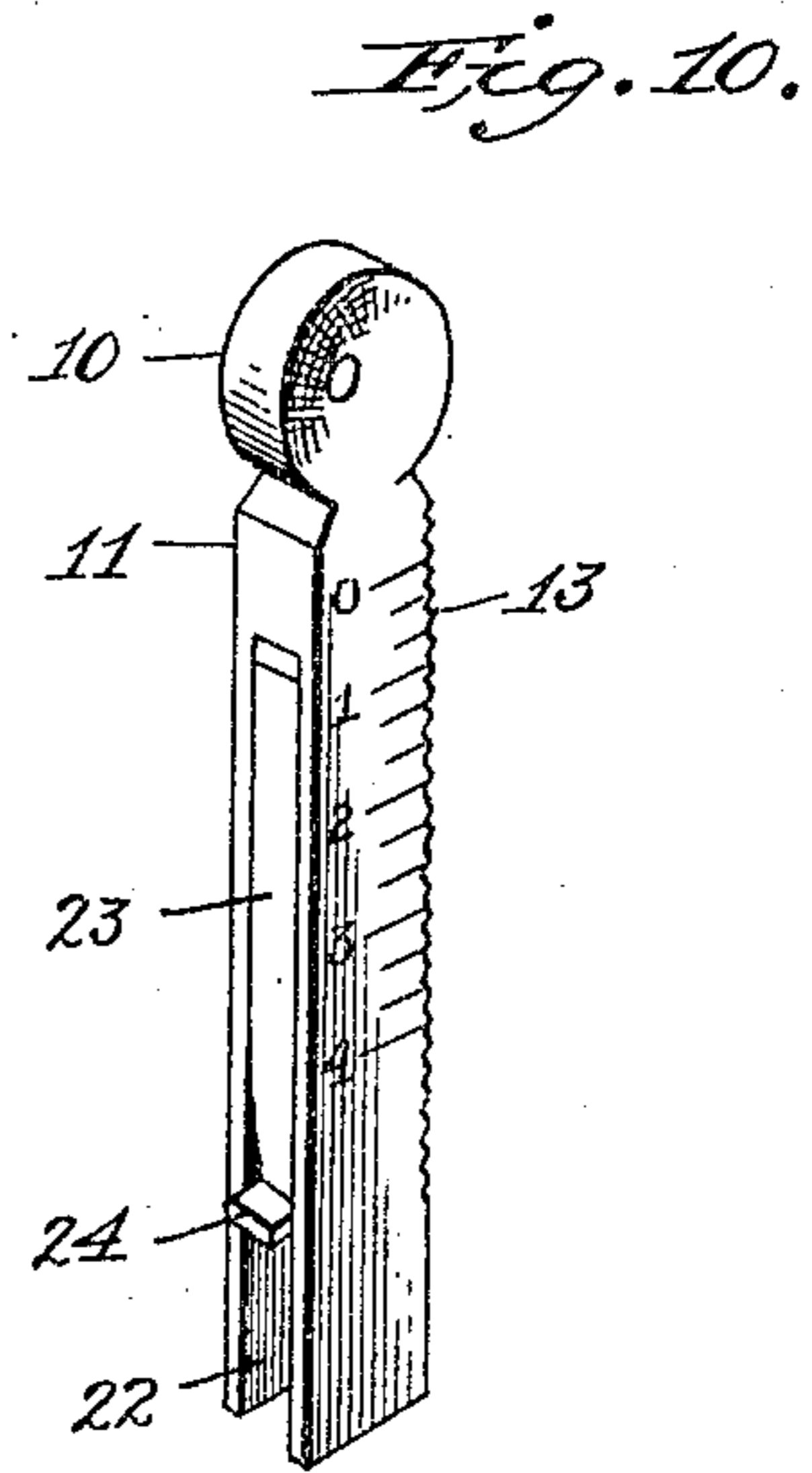
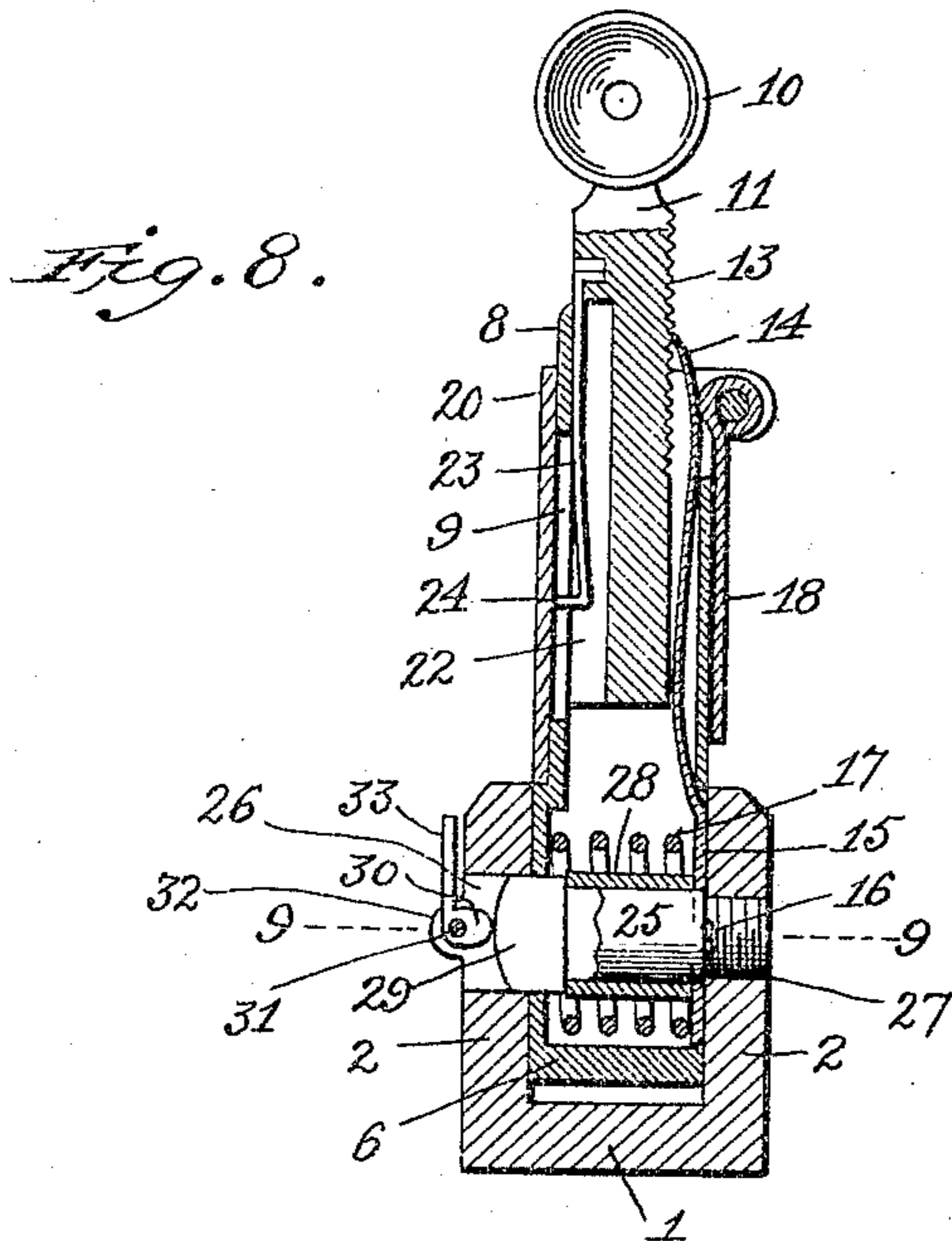
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2 SHEETS—SHEET 2.



Witnesses  
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# UNITED STATES PATENT OFFICE.

WEBSTER L. MARBLE, OF GLADSTONE, MICHIGAN.

## REAR SIGHT.

No. 894,275.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed May 20, 1907. Serial No. 374,591.

*To all whom it may concern:*

Be it known that I, WEBSTER L. MARBLE, a citizen of the United States, residing at Gladstone, in the county of Delta and State of Michigan, have invented new and useful Improvements in Rear Sight, of which the following is a specification.

This invention relates to gun sights, and its object is to provide a rear sight which is simple and cheap to construct, and efficient and durable in operation.

To this end my improved sight is composed mainly of parts drawn up from cold rolled metal, preferably steel; the disk stem alone being worked out of a solid bar. The upright is polygonal in cross section, being preferably square, and the disk stem is also of a similar shape. It is locked in any elevation to which it may be adjusted by means of a clamping lever, preferably operating in conjunction with a spring-pawl which engages teeth in the side of the disk stem. This spring-pawl forces the disk stem against the opposite side of the upright, so that a perfect alignment is always obtained. The lower end of said pawl is formed with parts coöperating with one of the ears on the base to afford an angle lock for the upright.

In the accompanying drawing, Figure 1 is a side elevation. Fig. 2 is a cross section. Fig. 3 is a perspective view of the base. Fig. 4 shows the spring-pawl. Fig. 5 shows two views of the upright. Fig. 6 shows the sleeve. Fig. 7 shows the clamping lever. Fig. 8 is a cross section of a modification. Fig. 9 is a transverse section on line 9—9. Figs. 10, 11 and 12 are details.

The base is formed of a strip of rolled metal 1 having the ears 2 integral therewith and turned up at right angles thereto from the dotted line position which they occupied when this part was punched from a sheet. The ears are drilled to receive the joint screw 3, and one of them is tapped to mesh therewith. One of the ears also has a groove 4 crossing the screw hole; and the base is provided with the usual screw holes 5 for attaching it to the gun-stock.

The upright has a cylindrical hub 6 closed at one end except for the hole 7 through which the joint screw passes. Extending radially from the cylindrical hub is the body 8 which is open along one side corresponding with the open end of the hub. The opposite side has a longitudinal slot 9, and the cross

section of the body is preferably square, as shown. This part is drop forged from the cold sheet-metal.

The disk 10 has a stem 11 integral therewith, in the form of a square bar adapted to fit easily in the upright, and provided with a lug 12 on one side to engage with the slot 9 and limit the longitudinal movement of the stem. Graduations are preferably placed on the stem to facilitate its adjustment, and on the side towards the open side of the upright the stem has preferably a series of small teeth 13. Engaging with this side of the stem is a leaf spring pawl 14, composed of a strip of spring steel or the like adapted to fit into and close the open side of the upright and having its upper end provided with a sharp edge projecting toward the stem, while its lower end has a circular head 15 of proper size to fit into the open end of the hub 6. The head is centrally perforated to permit the joint screw to pass through it, and on its outer side it has a diametrical corrugation or rib 16, adapted to engage with the groove 4 in the ear 2.

A joint spring 17 is housed in the hub 6, abutting at one end against the closed end of said hub, and at the other end against the head 15 of the spring pawl, which is thereby kept pressed closely against the ear 2, so that when the rib 16 registers with the groove 4 the two will be engaged, and lock the upright in a definite position with reference to the base. The edges of the rib and groove are rounded so that a firm pressure against the upright will overcome the friction produced by the joint spring, disengage the rib, and allow the upright to be swung back and forth.

In order to lock the disk at any elevation to which it may be adjusted, the spring pawl is forced against the stem by a clamping lever 18, pivoted in ears 19 on a sleeve 20 surrounding the upright. The lever is in the nature of a cam, which presses the pawl inwardly when closed down upon the sleeve, but which releases the pawl when opened outwardly into the position shown in dotted lines in Fig. 2. The lever is preferably provided with flanges 21 which have a rubbing fit upon the sides of the sleeve, so that the lever will thus be secured by friction when it is closed.

In the modified construction shown on Sheet 2 of the drawings, the stem is provided

with a groove 22 in which is housed a light spring 23 having an outwardly bent end 24 which enters the slot 9 in the upright, and takes the place of the lug 12 shown in Fig. 2.

5 When it is desired to disengage the stem from the upright, this spring can be pressed inwardly until the bent end 24 is embedded in the groove, and no longer engages with the slot, so that the stem can be drawn up out of the upright.

10 In place of the plain joint screw 3, shown in Fig. 2, I may use a joint screw such as I have shown in Figs. 8, 9 and 11. This has a smooth cylindrical body 25 of a length equal  
15 to the space between the ears 2, an enlarged cylindrical head 26 fitting a suitable hole in one of said ears, and a screw threaded end 27 meshing with the threads in the other ear. Surrounding the body 25 is a sleeve 28 which  
20 bears at one end against the head 15 of the spring pawl. The joint spring 17 encircles the sleeve. The screw is slotted transversely from its head well along into the body, and in this slot is a flat piece of metal  
25 29 bearing against the end of the sleeve and serving as a follower to force said sleeve lengthwise against the head 15. The follower is actuated by a cam 30 pivoted on a pin 31 which passes through ears 32 on the  
30 outer end of the screw-head, said ears being outside of the ear 2. The cam has a small handle 33 by which it can be manipulated. When this cam is turned as shown in Fig. 8  
35 so as to force the follower and the sleeve against the head 15, the latter is pressed tightly against the ear 2, and is held rigidly, so that the rib 16 is locked in the groove 4. Under these circumstances the sight is firmly  
40 secured in position, and cannot be turned down upon the stock of the gun. To release, it, the cam is turned over, permitting the follower to back away from the end of the sleeve, and thus loosening the parts to such  
45 an extent that the rib 16 can be sprung out of the groove 4 in the act of turning down the sight.

It will be observed that the several parts of this rear sight are simple and few in number, easily made and assembled, and light in  
50 weight. The adjustment of the disk is quickly made, and the joint spring keeps a constant pressure between the hub, the head of the pawl and the ears of the base, taking up all wear as it occurs, and preventing lost  
55 motion.

Having thus described my invention, what I claim is:—

1. A rear sight for firearms, comprising a base, an upright pivoted thereto, a disk having a polygonal stem sliding in said upright,  
60 a leaf spring pawl engaging one side of said stem and means for locking said pawl.

2. A rear sight for firearms, comprising a base, an upright pivoted thereto, a disk having a polygonal stem sliding in said upright

a pawl engaging with said stem, and a clamping cam lever acting to hold and release said pawl.

3. A rear sight for firearms, comprising a base, an upright pivoted thereto and having one side open, a leaf spring pawl serving to close said open side, and a stem sliding in said upright and engaged by said pawl.

4. A rear sight for firearms, comprising a base, an upright pivoted thereto and having one side open, a pawl occupying said open side, a stem sliding in said upright, and a clamping cam lever for pressing said pawl into engagement with said stem.

5. A rear sight for firearms, comprising a base, an upright having a hub, said upright and hub being open on one side, a pawl occupying said open side and having a head in line with said hub, a pivot screw passing through said hub and head, a stem sliding in said upright, and means for engaging said pawl with said stem.

6. A rear sight for firearms, comprising a base having ears, an upright having a cylindrical hub fitting between said ears, said hub and upright being open on one side, a pawl occupying said open side and having a head closing the open end of said hub, a pivot screw passing through said ears, hub and head, a joint spring encircling said screw and abutting against said hub and head, and a disk-stem sliding in said upright and engaged by said pawl.

7. A rear sight for firearms, comprising an upright, a pawl at one side thereof, a stem sliding in the upright, a sleeve surrounding said upright, and a clamping lever pivoted on said sleeve and bearing against said pawl.

8. A rear sight for firearms, comprising a tubular upright and hub open on one side and drawn up from sheet metal, and a sheet metal pawl filling the open side of said upright and hub.

9. A rear sight for firearms, comprising a sheet metal upright, a sheet metal pawl, a sheet metal sleeve surrounding said upright, and a sheet metal lever pivoted to said sleeve.

10. A rear sight for firearms, comprising a sheet metal upright, a sheet metal pawl, a sheet metal sleeve surrounding said upright, and a sheet metal lever pivoted to said sleeve, and having flanges engaging said sleeve with a rubbing fit.

11. A rear sight for firearms, comprising a base, an upright pivoted thereto, a joint screw serving as the pivot, an element yielding lengthwise of said joint screw for locking said upright yieldingly, and an unyielding device acting lengthwise of said joint screw for preventing the lengthwise yielding of said element.

12. A rear sight for firearms, comprising a base having ears, a joint screw passing through said ears and slotted transversely

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an upright pivoted on said screw, a sleeve mounted on said screw and bearing against a portion of said upright, and a follower movable in said slot for forcing said sleeve  
5 lengthwise.

13. A rear sight for firearms, comprising a base having ears, a joint screw passing through said ears and slotted transversely, an upright pivoted on said screw, a sleeve  
10 mounted on said screw and bearing against a portion of said upright, a follower in said slot, and a cam mounted on the head of the screw and serving to move said follower and sleeve lengthwise.

15 14. A rear sight for firearms, comprising a base having ears, one of which is recessed, an

upright pivoted between said ears and having a hub provided at one end with a projection, a helical spring for pressing said end into contact with the recessed ear, a sleeve 20 inside of said spring and bearing against said end of the hub, and means for positively forcing said sleeve lengthwise to cause said end to lock with said ear.

In testimony whereof I have signed my 25 name to this specification in the presence of two subscribing witnesses.

WEBSTER L. MARBLE.

Witnesses:

JAMES JONES,  
CLAUDE HAWKINS.